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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,403	11/07/2001	Charles Tillman Keller	086402-9018-00	2033
23585	7590	12/18/2003	EXAMINER	
MICHAEL BEST & FRIEDRICH LLP 3773 CORPORATE PARKWAY SUITE 360 CENTER VALLEY, PA 18034-8217			BELL, BRUCE F	
			ART UNIT	PAPER NUMBER
			1746	

DATE MAILED: 12/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/039,403

**Applicant(s)**

KELLER ET AL.

**Examiner**

Bruce F. Bell

**Art Unit**

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25-44 is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-14 and 45-48 is/are rejected.
- 7) ☒ Claim(s) 10, 15-24, 49 and 50 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 032902.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 8, 11-14, 45-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Tausk (3423305).

Tausk disclose an anode for cathodic protection having an internal opening concentric to the longitudinal axis of the anode and penetrating through the head and body to a point such that depletion of the major portion of the anode opens the blind end so that it becomes a nozzle to signal depletion with a thin jet of leakage water. See abstract. A cathodically protected vessel 10 has an end cover 20 which receives the anode structure 28a having the bleed hole 30. See col. 1, lines 56 – col. 2, lines 10. An anode body 32 of the structure 28a in the shape of a rod of sacrificial metal is electrically coupled by means of a double threaded plug 34 to the neck portion 26 of the sidewall of the end cover. A plug bore 36 within the neck holds the plug 34 of the structure 28a watertight in threads which taper inwardly. The body 32 is threaded into an anode bore formed within the plug 34 and the threads taper outwardly at 38. See col. 2, lines 11-25. The body 32 prevents the bleed hole 30 from communicating with the raw water 40 in the vessel. See col. 2, lines 26-27. The body 32 is made of a metal

that is electropositive to the other metal or metals involved. The sacrificial metal can be zinc or magnesium, and the tank metals can be iron, steel, copper, tin, brass and bronze. See col. 2, lines 55-62.

The prior art of Tausk anticipates the applicants' instant invention as set forth since each element has been found as set forth above. The recitation with respect to dependent claim 2 appears to have been met in view of the terminology "near", since it can not be ascertained as to how "near" the plug has to be "near" the bottom of the tank.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tausk (3423305) in combination with Maruska (4013811).

Tausk is as disclosed above in the 35 USC 102 rejection.

Tausk does not disclose the use of aluminum for the sacrificial anode body nor does Tausk disclose which direction the plug is screwed in.

Maruska disclose a sacrificial anode used in a metal mold which is provided with a plug at one end. The laminated anode is of a sacrificial metal which is less noble than the metal of the mold and when the mold and cover is Stainless steel,

the sacrificial material can be aluminum, magnesium or zinc. See col. 2, line 50 – col. 3, line 4.

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the instant invention was made because even though the prior art of Tausk does not disclose the aluminum anode, it is shown in the prior art of maruska that aluminum is a know sacrificial anode material used in cathodic protection systems. The direction that the screw threads in the tank is an obvious design choice and the person having ordinary skill in the art would have the knowledge to thread the plug in which ever direction is more advantageous for the particular environment in which the anode and plug are to be used.

***Allowable Subject Matter***

5. Claims 10, 15-44, 49 and 50 are allowable over the prior art of record.
6. Claim 10,15-24, 49, 50 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to teach and/or suggest a pressure vessel having a plug that has a let down valve movable between an open position and a closed position and the let down valve being able to release moisture and pressure from within the tank when the valve is open. The prior art of record also fails to teach and/or suggest having

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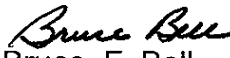
a second plug and anode in the port to seal the tank. The prior art also fails to teach and/or suggest having a pressure vessel with a main plug, a primary anode, a tell-tale plug and a tell-tale anode disposed within the tank.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bruce F. Bell whose telephone number is 703-308-2527. The examiner can normally be reached on Monday-Friday 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 703-308-4333. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

BFB  
December 11, 2003

  
Bruce F. Bell  
Primary Examiner  
Art Unit 1746